What is claimed is:

1. A N-glycosylation-modified recombinant chicken cystatin, characterized in that Asn_{106}-Ile_{108} in its amino acid sequence is modified to Asn_{106}-Thr_{108}.

2. The N-glycosylation-modified recombinant chicken cystatin of claim 1, which has improved stability in a freezing-thawing process and in a heating process.

3. The N-glycosylation-modified recombinant chicken cystatin of claim 1, which functions in the inhibition of thermal degradation and gel softening of surimi.

4. The N-glycosylation-modified recombinant chicken cystatin of claim 1, wherein said surimi is derived from nemipterid, mackerel or cod.

5. A nucleic acid molecule encoding the N-glycosylation-modified recombinant chicken cystatin of claim 1, characterized in that the triplet codon encoding the 108^{th} amino acid in the amino acid sequence of chicken cystatin is changed from AGT to TCA or its degenerate codons.

6. An expression vector comprising the nucleic acid molecule of claim 5.

7. The expression vector of claim 6, which is the expression vector pGAPZαC containing GAP promoter.

8. A yeast transformant harboring the expression vector of claim 6 or 7.

9. The yeast transformant of claim 8, wherein the yeast is *Pichia pastoris*.

10. The yeast transformant of claim 9, wherein the yeast is *Pichia pastoris* strain X-33.

11. A method for producing the N-glycosylation-modified recombinant chicken cystatin of claim 1, characterized in comprising the steps of culturing a nutritional medium under an aerobic condition with the yeast transformant of claim 8 for producing the N-glycosylation-modified recombinant chicken cystatin, and recovering the N-glycosylation-modified recombinant chicken cystatin thus obtained.

12. The method of claim 11, wherein said recovery is conducted by salting-out precipitation, concentration, centrifugation, filtration, ultra-filtration, filtration chromatography, gel chromatography, affinity chromatography, ionic chromatography, or a combination thereof.

13. A composition for inhibiting the thermal degradation of surimi, comprising the N-glycosylation-modified recombinant chicken cystatin of claim 1 and an expander selected from the group consisting of a compatible protein, starch or a combination thereof.

14. A method of using the composition of claim 13 for inhibiting the thermal degradation of surimi, comprising adding the composition of claim 13 to surimi.

15. The method of claim 14, wherein the surimi is derived from nemipterid, mackerel or cod.

16. The method of claim 14 or 15, wherein 0.01 to 0.10 active units, preferably 0.02 to 0.05 active units, of the N-glycosylation-modified recombinant chicken cystatin of claim 1 per 1 g of surimi is added.